AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the

application:

1.   (Currently amended) Telecommunication equipment, comprising:

a switch <u>coupled with</u> a plurality of <u>Ethernet</u> ports for receiving <u>Ethernet</u> framed data

~~from a plurality of ports and switching the data to a plurality of ports~~, each frame of data

including a header information, the switch operable to insert without removing any existing

header information a unique port identifier into a predefined header field of frames of the data

from each <u>one of the plurality of Ethernet</u> port<u>s</u> to identify the <u>Ethernet</u> port from which the data

is received; and

a multiplexer coupled to the switch and operable to multiplex the <u>Ethernet framed</u> data

~~frames from the plurality of ports~~ into a single serial data stream, the multiplexer being operable

to multiplex the <u>Ethernet framed</u> data from the plurality of ports into a single synchronous

payload envelope.

2.   Cancelled.

3.   Cancelled.

4.   Cancelled.

5.   (Original) The telecommunication equipment, as set forth in claim 1, further

comprising a subscriber access multiplexer operable to receive the single serial data stream from

the multiplexer, demultiplex the serial data stream into data from each port, and route the data based on the unique port identifier.

6.   (Previously presented) Telecommunication equipment, comprising:

a switch having a plurality of ports for receiving framed data from a plurality of ports and switching the data to a plurality of ports, each frame of data including a header information, the switch operable to insert a unique port identifier into a predefined header field of frames of data from each port to identify the port from which the data is received; and

a multiplexer coupled to the switch and operable to multiplex the data frames from the plurality of ports into a single serial data stream, the multiplexer being operable to multiplex the data from the plurality of ports into a single synchronous payload envelope;

wherein the data includes data in Ethernet data frames and the predefined header field includes a virtual LAN field.

7.   (Currently amended) <u>Telecommunication equipment, comprising:</u>

<u>a switch for receiving framed data from a plurality of ports and switching the data to a plurality of ports, each frame of data including a header information, the switch operable to insert without removing any existing header information a unique port identifier into a predefined header field of frames of the data from each port to identify the port from which the data is received;</u>

<u>a multiplexer coupled to the switch and operable to multiplex the data frames from the plurality of ports into a single serial data stream, the multiplexer being operable to multiplex the data from the plurality of ports into a single synchronous payload envelope;</u>

~~The telecommunication equipment, as set forth in claim 1, further comprising:~~

a subscriber access multiplexer operable to receive data from a plurality of sender nodes in a network and operable to insert the unique port identifier based on an IP address of the sender node of the data, and multiplex the data into a single serial data stream;

the multiplexer being operable to receive the single serial data stream from the subscriber access multiplexer and demultiplex the data; and

the switch being operable to switch the demultiplexed data based on the unique port identifier to the plurality of ports.

8.   (Currently amended) <u>Telecommunication equipment, comprising:</u>

<u>a switch for receiving framed data from a plurality of ports and switching the data to a plurality of ports, each frame of data including a header information, the switch operable to insert without removing any existing header information a unique port identifier into a predefined header field of frames of the data from each port to identify the port from which the data is received;</u>

<u>a multiplexer coupled to the switch and operable to multiplex the data frames from the plurality of ports into a single serial data stream, the multiplexer being operable to multiplex the data from the plurality of ports into a single synchronous payload envelope; and</u>

~~The telecommunication equipment, as set forth in claim 1, further comprising~~ a subscriber access multiplexer operable to receive the single serial data stream from the multiplexer and route the data to a destination network node based on the unique port identifier, a MAC address and IP address in the data.

9.   (Currently amended) A method comprising:

receiving <u>with a switch</u> framed data from a plurality of <u>Ethernet</u> ports, each frame of data including header information;

adding a unique port identifier to the header information in the frames of data from each port, without removing header information, in order to identify the port from which the data came;

multiplexing the data from the plurality of <u>Ethernet</u> ports into a single data stream for transmission by synchronous transmission medium.

10.   (Original) The method, as set forth in claim 9, wherein receiving data comprises receiving data from a plurality of Ethernet ports.

11.   (Previously presented) The method, as set forth in claim 9, wherein multiplexing the data comprises multiplexing the data into a single synchronous payload envelope.

12.   (Currently amended) A method comprising:

receiving framed data <u>at a switch</u> from a plurality of <u>Ethernet</u> ports, each frame of data including header information;

adding a unique port identifier to the header information in the frames of data from each port to identify the port from which the data came;

multiplexing the data from the plurality of ports into a single data stream for transmission by synchronous transmission medium;

wherein adding the unique port identifier comprises inserting the unique port identifier into a VID field of a tagged MAC frame of the data.

13.   (Original) The method, as set forth in claim 9, further comprising converting the single serial data stream into SONET optical signals for transmission.

14.   (Original) The method, as set forth in claim 9, further comprising:

receiving the single serial data stream;

demultiplexing the single serial data stream into data from each port; and

routing the data from each port based on the unique port identifier.

15.   (Original) The method, as set forth in claim 9, further comprising:

receiving data from a plurality of sender nodes in a network;

inserting a unique port identifier based on an IP address of the sender node of the data; and

multiplexing the data into a single serial data stream for transmission;

receiving the transmitted data and demultiplexing the data into data from each sender node; and

switching the demultiplexed data based on the unique port identifier to the plurality of ports.

16.   (Original) The method, as set forth in claim 9, further comprising receiving the single serial data stream and routing the data to a destination network node based on the unique port identifier, a MAC address and IP address in the data.

17.   (Currently amended) A method of multiplexing data from a plurality of ports for transmission, comprising:

receiving framed data from the plurality of Ethernet ports, each frame of data including header information containing at least destination addresses;

adding a unique port identifier to a predetermined header field of the framed data from each of the plurality of Ethernet ports, without removing any header information, to identify the port from which the data came;

multiplexing the data from the plurality of Ethernet ports into a single synchronous payload envelope; and

converting the multiplexed data into a optical signal for transmission.

18.   Cancelled.

19.   (Currently amended) A method of multiplexing data from a plurality of ports for transmission, comprising:

receiving framed data from the plurality of ports, each frame of data including header information containing at least destination addresses;

adding a unique port identifier to a predetermined header field of the framed data from each port, without removing any header information, to identify the port from which the data came;

multiplexing the data from the plurality of ports into a single synchronous payload envelope; and

converting the multiplexed data into a optical signal for transmission;

~~The method, as set forth in claim 17,~~ wherein adding the unique port identifier comprises inserting the unique port identifier into a VID field of a tagged MAC frame of the data.

20.   (Previously presented) The method, as set forth in claim 17, further comprising:

receiving the optical signal and converting to a single data stream;

demultiplexing the data stream from each port; and

routing the data from each port based on the unique port identifier.

21.   (Currently amended) A method of multiplexing data from a plurality of ports for transmission, comprising:

receiving framed data from the plurality of ports, each frame of data including header information containing at least destination addresses;

adding a unique port identifier to a predetermined header field of the framed data from each port, without removing any header information, to identify the port from which the data came;

multiplexing the data from the plurality of ports into a single synchronous payload envelope;

converting the multiplexed data into a optical signal for transmission;

~~The method, as set forth in claim 17, further comprising~~:

receiving data from a plurality of sender nodes in a network;

inserting a unique port identifier based on an IP address of the sender node of the data;

multiplexing the data into a single serial data stream for transmission;

receiving the transmitted data and demultiplexing the data into data from each sender node; and

switching the demultiplexed data based on the unique port identifier to the plurality of ports.

22.   (Currently amended) A method of multiplexing data from a plurality of ports for transmission, comprising:

receiving framed data from the plurality of ports, each frame of data including header information containing at least destination addresses;

adding a unique port identifier to a predetermined header field of the framed data from each port, without removing any header information, to identify the port from which the data came;

multiplexing the data from the plurality of ports into a single synchronous payload envelope; and

converting the multiplexed data into a optical signal for transmission; and

~~The method, as set forth in claim 17, further comprising~~ receiving the single serial data stream and routing the data to a destination network node based on the unique port identifier, a MAC address and IP address in the data.